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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,188	12/22/2004	Junpei Natsui	TAN-347	6825
35777	7590	10/12/2006		
SHERMAN & ASSOCIATES 415 NORTH ALFRED STREET ALEXANDRIA, VA 22314			EXAMINER HESS, BRUCE H	
			ART UNIT	PAPER NUMBER

1774

DATE MAILED: 10/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/519,188

Applicant(s)

NATSUI ET AL.

Examiner

Bruce H. Hess

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12-22-04 (Preliminary Amendment).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over the patent to Kaneko et al. (USP 6,846,619).

This patent teaches a thermally sensitive recording medium which can contain a color former, a compound of applicants' formulae (1) as a color developer and a compound of applicants' formula (2) as a sensitizer. See column 10, lines 37 and 38 and column 11, lines 55 and 56. WO 00/14058 disclosed in column 11 teaches the compound of formula (2).

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over the patent to Kaneko et al. in view of either of the patents to Minami et al. (USP 5,733,843) or Chuichi et al. (JP 2002-178646).

The primary reference applies as per the preceding paragraph. The secondary references teach that applicants' compounds of formula (4) are conventional color developers. Since it is obvious to combine separately taught ingredients which perform the same function, use of the color developer of the secondary references in conjunction with the color developer of the primary reference would have been obvious to one of ordinary skill in this art in the absence of unexpected results.

Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over the patent to Yoshihiro et al. (JP 04-164685) in view of the patent to Minami et al.

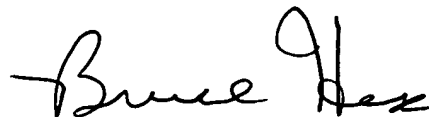
The primary reference teaches that the image preservability of a heat sensitive recording medium containing color formers and developers can be improved by adding a compound of applicants' formula (1). The secondary reference teaches the advantages of employing a color developer of applicants' formula (4) with a stabilizer of

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applicants' formula (2) in a thermally sensitive recording medium. Use of compounds (10, (2) and (4) in combination for their concomitant functions in a thermally sensitive recording material would have been obvious to one of ordinary skill in this art in the absence of unexpected results.

Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over the patent to Yoshihiro et al. (JP 04-164685) in view of the patent to Chiuchi et al. The primary reference teaches that the image preservability of a heat sensitive recording medium containing color formers and developers can be improved by adding a compound of applicants' formula (1). The secondary reference teaches the advantages of employing both of applicants' compounds of formulae (3) and (4) as color developers in a thermally sensitive recording medium. Use of the color developer mixture of the secondary reference as the generically disclosed color developer of the primary reference would have been obvious to one of ordinary skill in this art in the absence of unexpected results.

The patents to Nagai et al. and Fukuchi et al. are cited for their teaching of applicants' compound of formula (2) as a color developer in a thermally sensitive recording medium.



BRUCE H. HESS  
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